



## PATENT ABSTRACTS OF JAPAN

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(54) **FRAGRANCE DEODORIZER AND  
FRAGRANCE DEODORIZATION METHOD  
USING THE SAME**

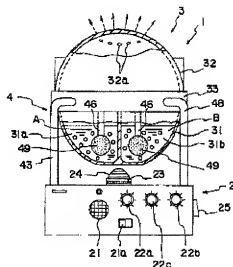
odor.

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a fragrance deodorizer capable of setting intensity of odorization due to on/off control of an air supply device sensing positively odors of various odorizing members by diffusing alternately two or more odors.

**SOLUTION:** This deodorizer comprises a container 3 having plural chambers 31a, 31b containing fragrance members A, B, an air supply means 4 for supplying air to respective chambers 31a, 31b, and a timer control means for driving selectively the air supply means 4. Not only a mixed fragrance of various fragrance members A, B, but also fragrance of various fragrance members A, B as odor, can be diffused alternately, so that sense of smell is not benumbed owing to single



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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention]This invention relates to the aroma of other types, or the suitable aroma diffuser for deodorization.

[0002]

[Description of the Prior Art]Conventionally, generally what is called a scent lamp or incense plate as what performs indoor aroma is used.

[0003]An electric bulb is used for this scent lamp as a source of heating, it trickles the liquefied essence into this electric bulb, and diffuses the essence indoors by generation of heat of an electric bulb. The liquefied essence used here is what melted in water oil refinement which distills vegetation, for example, Bala's petal, lemon pericarp, etc., and is generated, or this oil refinement, and it is called what is called aroma oil.

[0004]On the other hand, an incense plate hangs down several drops of said liquefied aroma member to the capsule into which water was put, lays this in sources of heating, such as a stove, and diffuses the essence indoors.

[0005]

[Problem(s) to be Solved by the Invention]however, in said conventional aroma diffuser, in order that an aroma operation may carry out by natural diffusion, it takes time until the aroma circulates to the whole interior of a room -- it carries out and it is said that an aroma operation is strengthened or is weakened -- it was not able to set up. The scent diffused indoors is one kind, and when a long time was covered and it was under the environment of the same scent, olfaction had the problem that it was paralyzed to this scent and a good scent could not be obtained.

[0006]The purpose of this invention can shorten a diffusion time to the interior of a room by performing an aroma deodorization operation compulsorily in view of said conventional technical problem. It is in providing the aroma deodorizing method using the aroma diffuser and this which can set up the strength of this aroma operation by the on-off control of an air feeder, diffuse two or more sorts of essence by turns further, and can carry out admiration \*\* of the scent of various essence certainly.

[0007]

[Means for Solving the Problem]In order that this invention may solve said technical problem, aroma deodorizing equipment concerning this invention of claim 1 is provided with the following.

A container of an upper opening which accommodates an aroma deodorizing substance or an aroma deodorizing member.

An air supply means which supplies a gas to an aroma deodorizing substance or an aroma deodorizing member in this container.

A timer control means which carries out drive controlling of the air supply means in time.

[0008]According to this invention, when an aroma deodorization operation to the interior of a room serves as strong setting out when lengthening air supply time to an aroma deodorizing substance etc., and shortening, it becomes weak setting out.

[0009]When using aroma deodorizing equipment concerning an invention of claim 10, an aroma deodorizing substance etc. are dropped at a diffusion member, and this is atomized with an ultrasonic wave oscillation apparatus. This atomized aroma deodorizing substance is indoors diffused by an air supply means.

[0010]When using aroma deodorizing equipment concerning an invention of claim 11, an aroma deodorizing

substance etc. are dropped at a diffusion member, and it is made to evaporate with a heat ray irradiated with this from a lamp. This vaporized aroma deodorizing substance is indoors diffused with air supplied from an air supply means.

[0011]According to the invention of claim 12 and claim 13, not only a scent that mixed various essence but also a scent of various essence can be diffused by turns, and olfaction is not paralyzed with one kind of scent again.

[0012]

[Embodiment of the Invention]Drawing 1 thru/or drawing 8 are what shows a 1st embodiment of the aroma deodorizing equipment concerning this invention, The partial notching front view of aroma deodorizing equipment and drawing 2 drawing 1 The side view of aroma deodorizing equipment, The sectional view in which drawing 3 shows the top view of aroma deodorizing equipment, and drawing 4 shows the inside of a pedestal, the abbreviation sectional view in which drawing 5 shows the joining structure of the pipe for ventilation, and a container, The abbreviation sectional view in which drawing 6 shows the joining structure of the pipe for ventilation and an air pump, the block diagram in which drawing 7 shows the drive controlling of an air pump, and drawing 8 are flow charts which show the drive controlling of an air pump.

[0013]This aroma deodorizing equipment 1 has the pedestal 2 in which various equipment was carried, and the container 3 arranged on this pedestal 2, and is placed by an indoor shelf or a desk etc. like interior by making this pedestal 2 into a mounting surface.

[0014]Here, as shown in drawing 1, in the front face of this pedestal 2, the infrared sensor 21 and the switch 21a of this infrared sensor 21 are installed, the infrared rays generated from a human body are detected by the sensor 21 in it, and the aroma deodorizing equipment 1 can be driven now in it based on this. The 1st timer switch 22a, the 2nd timer switch 22b, and the 3rd timer switch 22c are installed in the front face of the pedestal 2, and drive controlling of the 1st air pump 41 and the 2nd air pump 42 which are later mentioned with each of these timer switches 22a-22c is carried out. While installing the main timer switch 23 which controls the driving time of the aroma deodorizing equipment 1 whole in the upper surface of the pedestal 2, as shown in drawing 2, the lighting controllers 24a and 24b which control the lighting lamp 24 which illuminates the container 3, and the luminosity of this lighting lamp 24 are installed. The electric power switch 25 is installed in the side of the pedestal 2.

[0015]On the other hand, as shown in drawing 4 inside the pedestal 1, the 1st air pump 41 and the 2nd air pump 42 are installed, and, horizontally [ the ], the printed circuit board 53 in which the apparatus battery 51, the memory battery 52, and electronic parts were carried is installed.

[0016]The container 3 was formed by transparent glass or resin etc. which has heat resistance and chemical resistance, counters the hemispherical receptacle object 31 and the same hemispherical lid 32 up and down, connects the effective area with the annular connecting fitting 33, and it is formed so that the shape of a ball may be presented to the whole. As shown in drawing 5, the receptacle object 31 inserts a part for the upper flange section in the periphery of lower of the connecting fitting 33, and attachment and detachment of it are attained at the connecting fitting 33. This receptacle object 31 divides that inside into the 1st room 31a and 2nd room 31b. The water (henceforth [ an embodiment ] the 1st aroma member A) in which several drops of oil refinement (essence) which distills Bala's petal and is generated was dissolved is accommodated in the 1st room 31a. On the other hand, oil refinement (essence) which distills lemon pericarp and is generated has accommodated the water (henceforth [ an embodiment ] the 2nd aroma member B) dissolved several drops in the 2nd room 31b. The opening 32a which blows off the air in the container 3 outside in the upper part of the lid 32, i.e., an air vent, is arranged by a large number.

[0017]Air is supplied to each part stores 31a and 31b of the container 3 constituted in this way by the air supply means 4.

[0018]That is, this air supply means 4 comprises the 1st and 2nd air pumps 41 and 42 and the pipes 43 and 44 for the 1st and 2nd ventilation which were mentioned above. Each of these pipes 43 and 44 for ventilation, respectively The flexible tube 45 by the side of each air pump 41 and 42. The lower end is connected with the deliveries 41a and 42a of each air pumps 41 and 42, while it comprises the blow-off pipe 46 in the container 3, and the connected pipe 47 which blows off with the flexible tube 45 and connects the pipe 46 and the upper bed of this flexible tube 45 is connected with the lower end of the connected pipe 47.

[0019]The upper bed side comes to be crooked in the shape of L, and while the lower end side is fixed to the superior lamella of the pedestal 2, as for the connected pipe 47, penetration adherence of the horizontal part of an upper bed is carried out at the connecting fitting 33. This connected pipe 47 and the same support pipe

48 are set up on the pedestal 2, and are supporting the container 3 to the pedestal 2 with this support pipe 48 and connected pipe 47.

[0020]The blow-off pipe 46 is caudad crooked in the shape of an L character, and while the horizontal part is pressed fit in the connected pipe 47 and connects with the upper bed side of the connected pipe 47, the lower end has entered into each part store 31a and each aroma members A and B in 31b. The diffusion member 49 formed by porous firing resin is attached to the lower end of this blow-off pipe 46, and he changes a supply air into a cellular small state by this diffusion member 49, and is trying to blow off.

[0021]Thus, although the aroma deodorizing equipment 1 is constituted, as for the drive controlling, start and stop are controlled by turning on and off of the electric power switch 25, and the drive start time and driving stoppage time of the aroma deodorizing equipment 1 are controlled by the main timer switch 23. People's existence or nonexistence can be detected by the infrared sensor 21, and it can also control to only sometimes drive the aroma deodorizing equipment 1, when people are. Although such drive controlling is similarly performed in usual apparatus, the aroma deodorizing equipment 1 concerning this example can drive each air pumps 41 and 42 selectively by timer control. This alternative drive controlling is explained based on drawing 7 and drawing 8.

[0022]Namely, the 1st timer switch 22a with which this drive control circuit carries out timer control of the 1st air pump 41 as shown in drawing 7, The 2nd timer switch 22c that carries out timer control of the 2nd air pump 42, and the 3rd timer switch 22c that carries out timer control of the idle time at the time of the drive change between each air pump 41 and 42 are made into the input side. When time is set up with each of these timer switches 22a-22c, this setpoint signal is inputted into CPU6 which builds in the timer 61, and the 1st and 2nd air pumps 41 and 42 are driven through the 1st and 2nd air pumps 62 and 63 based on this setpoint signal.

[0023]The flow chart of drawing 8 explains this drive controlling. Here, t means real time, t1 means the set period of the 1st timer switch 22a, t2 means the set period of the 2nd timer switch 22c, and t3 means the set period of the 3rd timer switch 22c.

[0024]When time is set up with each timer switches 22a-22c, a time check is started and only the set period t1 drives the 1st air pump 41 (S1 - S4). Thereby, compressed air is fed by the diffusion member 49 through the pipe 43 for ventilation, serves as small air bubbles, and is supplied to the 1st aroma member A. These air bubbles go up incorporating the scent of the 1st aroma member A, and as shown in the dashed line arrow of drawing 1, they are indoors diffused from the air vent 32a. By this, Bala's scent will drift indoors.

[0025]When the drive of this 1st air pump 41 stops, a time check is started again and only the set period t3 maintains each air pumps 41 and 42 to a halt condition (S5, S6).

[0026]Then, a time check is started again and only the set period t2 drives the 2nd air pump 42 (S7-S10). Thereby, compressed air is fed by the diffusion member 49 through the pipe 44 for ventilation, serves as small air bubbles, and is supplied to the 2nd aroma member B. These air bubbles go up incorporating the scent of the 2nd aroma member B, and are indoors diffused from the air vent 32a. By this, a lemon scent will drift indoors.

[0027]When the drive of this 2nd air pump 42 stops, a time check is started again and only the set period t3 maintains each air pumps 41 and 42 to a halt condition (S11, S12). When this halt condition is completed, it returns to Step 1 again and said drive controlling is repeated.

[0028]Thus, various aroma can be obtained good, without olfaction being paralyzed, in order that according to this embodiment the drive controlling of the aroma deodorizing equipment 1 may put in non-aroma time in between and may supply two kinds of aroma by turns.

[0029]The pipes 43 and 44 for ventilation are used as a support member of the container 3, and the part mark of the supporting structure of the container 3 can be lessened.

[0030]Since each part store 31a and the air supplied in 31b serve as small air bubbles by the diffusion member 49 and the touch area of the aroma members A and B and air is large, a scent is supplied indoors efficiently. It is what has a noise small blowing because of small air bubbles and very low.

[0031]Although the flow chart of drawing 8 mentioned above explained the case where each air pumps 41 and 42 were driven by turns, When it has the mode in which it does not set up, therefore each timer switches 22a-22c are set as the mode in which it does not set up, each air pumps 41 and 42 drive simultaneously each timer switches 22a-22c, and they can supply indoors the aroma which mixed Bala's scent and the lemon scent. Only one side is driven among each air pumps 41 and 42, and it may be made to supply the scent of either one of Bala or lemon indoors. When setting driving stoppage time with the main timer switch 23, it

becomes what is called a sleep timer, and when setting another side and drive start time, it becomes what is called an alarm clock timer.

[0032]Drawing 9 shows a 2nd embodiment of the aroma deodorizing equipment concerning this invention, and this 2nd embodiment has the heater 7 dipped in the aroma members A and B. This heater 7 is a cylindrical heater and is using the heat-resistant and insulating installed pipe 71 as an attaching member of this heater 7. That is, while connecting one end of the installed pipe 71 with the upper bed of the heater 7, the other end is pressed fit in the support pipe 48, and the heater 7 is installed in the container 3.

[0033]According to this embodiment, the aroma members A and B of each part stores 31a and 31b can be heated with the heater 7, it can be made the temperature which was most suitable for aroma, and, thereby, aroma power can be raised. The electric wiring 72 of the heater 7 is connectable with the apparatus battery 51 within the pedestal 2 through the centrum of the installed pipe 71 and the support pipe 48. Since the holddown member for wiring becomes unnecessary and the electric wiring 72 is in the concealment state with each pipes 71 and 72, the external fine sight of the aroma deodorizing equipment 1 is not spoiled.

[0034]Drawing 10 shows a 3rd embodiment of the aroma deodorizing equipment concerning this invention. Although the liquefied thing is used as the aroma members A and B in said 1st and 2nd embodiments, the aroma member A1 concerning this 3rd embodiment and the granular or powdered solid member with which the polymers absorber was impregnated in the essence in B1 are used. Thus, indoor aroma can be performed as well as said 1st embodiment when using a solid member as the aroma member A1 and B1.

[0035]Although the receptacle object 31 which constitutes the container 3 is inserted in the connecting fitting 33 and constituted from said 1st [ the ] thru/or a 3rd embodiment, a screw thread is formed and \*\*\*\*\* and it may be made to detach and attach with a mechanism. Although the aroma members A and B, A1, and B1 are accommodated in each part stores 31a and 31b, when accommodating a deodorizing substance in the container 3 instead of the aroma members A and B, A1, and B1, of course, a deodorization operation is demonstrated.

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PRIOR ART

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[Description of the Prior Art]Conventionally, generally what is called a scent lamp or incense plate as what performs indoor aroma is used.

[0003]An electric bulb is used for this scent lamp as a source of heating, it trickles the liquefied essence into this electric bulb, and diffuses the essence indoors by generation of heat of an electric bulb. The liquefied essence used here is what melted in water oil refinement which distills vegetation, for example, Bala's petal, lemon pericarp, etc., and is generated, or this oil refinement, and it is called what is called aroma oil.

[0004]On the other hand, an incense plate hangs down several drops of said liquefied aroma member to the capsule into which water was put, lays this in sources of heating, such as a stove, and diffuses the essence indoors.

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EFFECT OF THE INVENTION

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[Effect of the Invention]According to this invention, when the aroma deodorization operation to the interior of a room serves as strong setting out when lengthening air supply time to an aroma deodorizing substance etc., and shortening, it becomes weak setting out, and an indoor aroma deodorization operation can be set up arbitrarily to have explained above.

[0048]Since it is evaporated by this heat ray when installing the lamp which trickles an aroma deodorizing substance etc. into a diffusion member, and is atomized with an ultrasonic wave oscillation apparatus in this, and irradiates a diffusion member with a heat ray when installing an ultrasonic wave oscillation apparatus in a diffusion member, it is not necessary to store an aroma deodorizing member in a container.

[0049]When two sets work the aroma deodorizing equipment which has two or more rooms in a container, or the aroma deodorizing equipment which has one room, not only the scent that mixed various essence but also the scent of various essence can be diffused by turns, and olfaction is not paralyzed with one kind of scent.

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention]however, in said conventional aroma diffuser, in order that an aroma operation may carry out by natural diffusion, it takes time until the aroma circulates to the whole interior of a room -- it carries out and it is said that an aroma operation is strengthened or is weakened -- it was not able to set up. The scent diffused indoors is one kind, and when a long time was covered and it was under the environment of the same scent, olfaction had the problem that it was paralyzed to this scent and a good scent could not be obtained.

[0006]The purpose of this invention can shorten a diffusion time to the interior of a room by performing an aroma deodorization operation compulsorily in view of said conventional technical problem. It is in providing the aroma deodorizing method using the aroma diffuser and this which can set up the strength of this aroma operation by the on-off control of an air feeder, diffuse two or more sorts of essence by turns further, and can carry out admiration \*\* of the scent of various essence certainly.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1]The partial notching front view of the aroma deodorizing equipment concerning a 1st embodiment

[Drawing 2]The side view of the aroma deodorizing equipment concerning a 1st embodiment

[Drawing 3]The top view of the aroma deodorizing equipment concerning a 1st embodiment

[Drawing 4]The sectional view showing the inside of the pedestal concerning a 1st embodiment

[Drawing 5]The abbreviation sectional view showing the joining structure of the pipe for ventilation and container concerning a 1st embodiment

[Drawing 6]The abbreviation sectional view showing the joining structure of the pipe for ventilation and air pump concerning a 1st embodiment

[Drawing 7]The block diagram showing the drive controlling of the air pump concerning a 1st embodiment

[Drawing 8]The flow chart which shows the drive controlling of the air pump concerning a 1st embodiment

[Drawing 9]The abbreviation sectional view showing the attachment state of the heater concerning a 2nd embodiment

[Drawing 10]The sectional view showing the aroma member concerning a 3rd embodiment

[Drawing 11]The partial notching front view of the aroma deodorizing equipment concerning a 4th embodiment

[Drawing 12]The top view of the aroma deodorizing equipment concerning a 4th embodiment

[Drawing 13]The assembly perspective view of the aroma deodorizing equipment concerning a 4th embodiment

[Drawing 14]The abbreviation sectional view showing the joining structure of the pipe for ventilation and container concerning a 4th embodiment

[Drawing 15]The front view showing the state where two or more aroma deodorizing equipment concerning a 4th embodiment was electrically connected

[Drawing 16]The sectional view showing the important section of the aroma deodorizing equipment concerning a 5th embodiment

[Drawing 17]The sectional view showing the important section of the aroma deodorizing equipment concerning a 6th embodiment

[Drawing 18]The sectional view showing the important section of the aroma deodorizing equipment concerning a 7th embodiment

[Drawing 19]The top view showing the structure of the inlet side of an air pump

[Description of Notations]

1,100 [ -- An air supply means, 31a, 31b / -- The room, 41 42 / -- An air pump, 43 44,130 / -- The pipe for ventilation, A B, A1, B1, C / -- Aroma deodorizing member. ] -- Aroma deodorizing equipment, 2,110 -- A pedestal, 3,120 -- A container, 4

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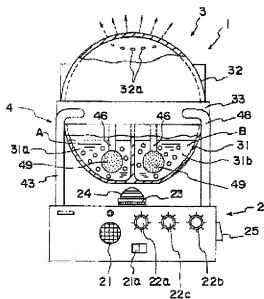
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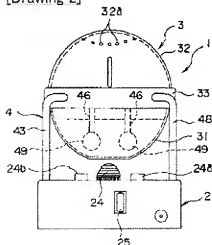
DRAWINGS

[Drawing 1]

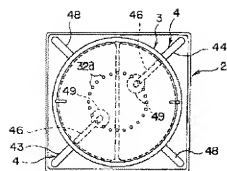
- 1 : 芳香消臭器  
2 : 基台  
3 : 容器  
43 : 通風用パイプ  
31a, 31b : 部屋  
A, B : 芳香部材



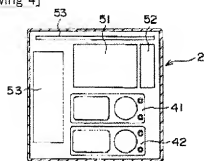
[Drawing 2]



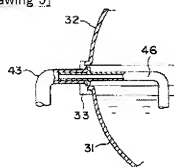
[Drawing 3]



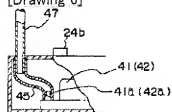
[Drawing 4]



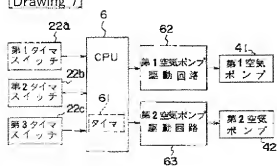
[Drawing 5]



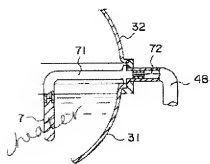
[Drawing 6]



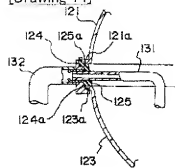
[Drawing 7]



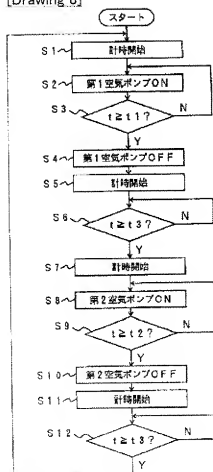
[Drawing 9]



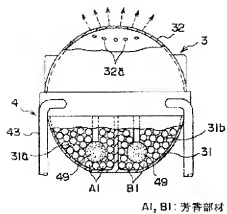
[Drawing 14]



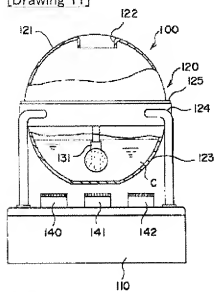
[Drawing 8]



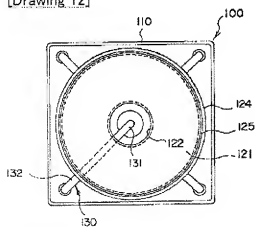
[Drawing 10]



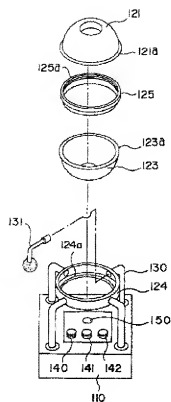
[Drawing 11]



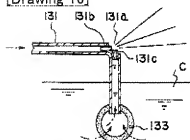
[Drawing 12]



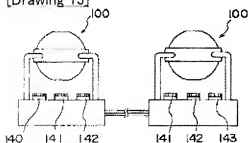
[Drawing 13]



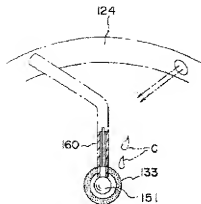
[Drawing 16]



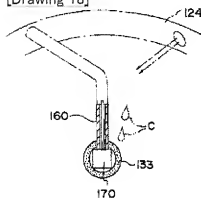
[Drawing 15]



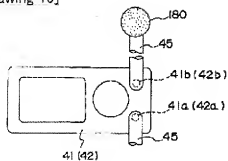
[Drawing 17]



[Drawing 18]



[Drawing 19]



[Translation done.]